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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/039,622

12/31/2001

Dennis W. Vance

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04/22/2004

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,622

Applicant(s)

VANCE ET AL.

Examiner

Joshua L Pritchett

Art Unit

2872

rw

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39, 40 and 42-47 is/are rejected.
- 7) ☒ Claim(s) 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to Request for Continued Examination filed March 5, 2004 and Amendment filed January 23, 2004. Claims 1-38, 48 and 49 are cancelled and claim 39 is amended as requested by the applicant.

Claim Rejections - 35 USC § 103

Claims 39, 40 and 42-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vance (US 5,563,738) in view of Ziera (US 5,932,342).

Regarding claim 39, Vance teaches a light filter comprising a first layer (16) of substantially opaque material (col. 3 line 28) including front and back surfaces (Fig. 6A); a plurality of light transmissive beads (14) disposed in a single-layer array within the first layer of opaque material with first portions of the beads penetrating through the front surface of the first layer (Fig. 6A) to form light transmissive apertures and remaining portions of the beads protruding through the back surface of an not disposed within the first layer to receive incident light (Fig. 6A). Vance further teaches a second layer (12). Vance lacks a layer having asymmetrical light dispersion. Zeira teaches a light dispersion having asymmetrical light dispersion (col. 3 lines 4-6) characteristics along orthogonal axes and the layer including within a material for scattering incident light (col. 3 lines 4-6). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to equip second layer of Vance with the light-dispersing layer of Zeira for the purpose of enlarging the viewing angles of the filter.

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Regarding claim 40, Vance teaches the second layer disposed to receive light emanating from the apertures (Fig. 6A).

Regarding claim 42, Vance teaches a conformal layer (62) of transmissive material affixed to the back surface of the first layer and the remaining portion of the beads to receive incident light (Fig. 10B). Regarding claims 13 and 43, Vance teaches the beads have a radius R , and a thickness of the conformal layer is not greater than R (Fig. 10B).

Regarding claim 44, Vance teaches the beads have a radius R , and the thickness of the conformal layer is about 10% of R (Fig. 10B).

Regarding claim 45, Vance teaches a support layer of transparent material disposed intermediate the beads and the second layer (Fig. 8).

Regarding claim 46, Vance teaches a support layer of transparent material disposed relative to the beads and the second layer (Fig. 8).

Regarding claim 47, Vance teaches a thin transparent layer disposed between the first layer and the second layer, the beads penetrating the first layer (82) and the thin transparent layer (10) to form apertures of increased diameter (Fig. 8).

Allowable Subject Matter

Claim 41 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest the second layer interposed between the incident light and the remaining portion of the beads protruding through the back surface of the first opaque layer.

Response to Arguments

Applicant's arguments, see Amendment, filed January 23, 2004, with respect to the rejection(s) of claim(s) 39, 40 and 42-47 under Vance in view of Baek have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Vance in view of Ziera.

Applicant's arguments, see Amendment, filed January 23, 2004, with respect to objection to claim 41 have been fully considered and are persuasive. The objection of claim 41 has been withdrawn.

Conclusion

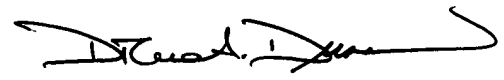
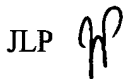
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLP



DREW A. DUNN
SUPERVISORY PATENT EXAMINER